dLAN® 200 AVeasy

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devolo AG
Sonnenweg 11
52070 Aachen
Germany

www.devolo.com

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1 Preface

1.1 Thank you!

The dLAN 200 AVeasy from devolo is the home plug-in device for high requirements on data transfer, such as HDTV streaming, Internet telephony, Quality of Service function (QoS) and fast Internet. With a transfer rate of up to 200 Mbps, the dLAN 200 AVeasy transforms the home electrical system in no time into a fast network – thanks to the powerful 128-bit AES encryption with maximum data security. Whether in the office or at home – devices such as modem, router, set-top box or the computer can be connected with the dLAN 200 AVeasy using the available Ethernet interface. On top of that, the range of 200 meters creates a high degree of flexibility.

Exacting manufacturing standards and stringent quality control are the basis for high product standards and consistent quality to ensure your fullest satisfaction with this dLAN 200 AVeasy.

1.2 About this manual

After a brief introduction to "dLAN" basics in **Chapter 2**, **Chapter 3** will cover successfully setting up your dLAN 200 AVeasy. **Chapter 4** explains how to configure your dLAN 200 AV network. In **Chapter 5**, you will learn more about the EasyClean and EasyShare applications included free of charge with your dLAN 200 AVeasy. For technical specifications, safety notes and our warranty terms, see **Chapter 6**.

Description of the symbols

Here we briefly describe the meaning of the symbols used in this manual.

Very important note. Failure to observe this note may result in damage.

Important note that should be observed.

Additional information, background material and configuration tips for your device.

From time to time you will find the icon of a devolo program in the margin to the left of the text; the program will be explained in greater detail at that point.

In addition to the standard software, devolo provides a wide range of useful free extras. For example, network products come with utilities to protect your privacy (devolo EasyClean) or quickly and easily share files within your home network (devolo EasyShare).

And if you are satisfied with your dLAN 200 AVeasy, be sure to have a closer look at our other products which are also designed to make your connected lifestyle easier and simpler!

We hope you have just as much fun reading this manual as we had writing it. If you have any further ideas or suggestions related to our products, we would be delighted to hear from your at **support@devolo.com**!

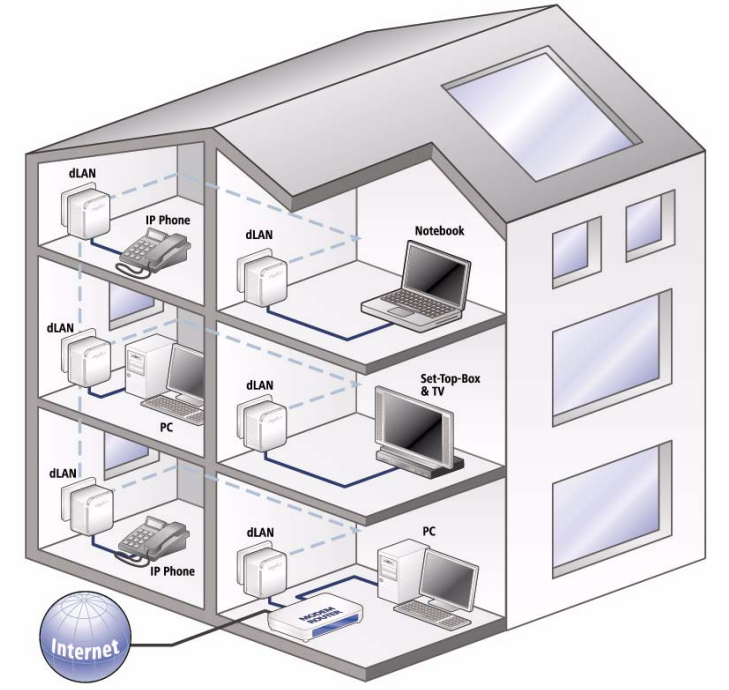
1.3 devolo on the Internet

For detailed information on our products, please visit **www.devolo.com**. The download area not only contains product descriptions and documentation, but also updates of devolo software and your device's firmware.

We especially recommend the extensive devolo manuals on the topic of home networking that contain a wealth of interesting background information. These are available free of charge and can be downloaded from the **Service & Support** area of our website.

2 Introduction

dLAN is an intelligent, secure technology that lets you set up a home network easily, quickly and economically via your household power grid, without the need for complex and expensive dedicated cabling. The available performance and effort required for the installation also compares favorably to traditional methods – dLAN technology now attains speeds you would expect from other LAN technologies, and installing it is a breeze!



2.1 What exactly is dLAN?

dLAN (**d**irect **L**ocal **A**rea **N**etwork) uses the household power grid to transfer data between computers equipped with suitable adapters and other network components. As a result, any power outlet can be used as a network access point. The data is modulated prior to transfer and sent as a signal via household power lines. State-of-the-art technology ensures that the power and data networks do not interfere with one another. Networking via dLAN is fast and

secure. The data is encrypted using a key to prevent easy interception by third parties.

2.2 What does the dLAN 200 AVeasy have to offer?

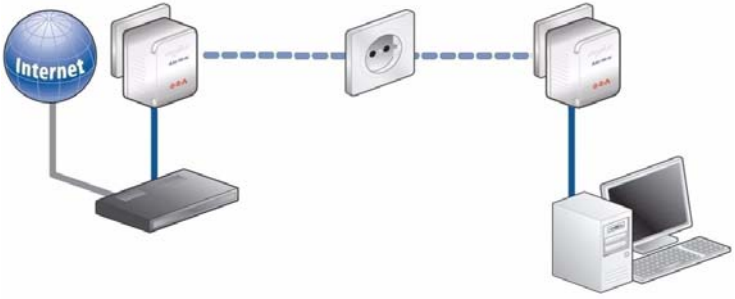
The dLAN 200 AVeasy offers a transfer rate of up to 200 Mbps which makes it ideal for high requirements, such as HDTV streaming, Internet telephony, Quality of Service function (QoS) and fast Internet. When connected to an electrical outlet, it changes the home-based electrical system in no time into a fast network with high data throughput. And all of that with optimum transfer and maximum data security using the powerful 128-bit AES encryption. Simply press the encryption button on the dLAN 200 AVeasy or use the dLAN configuration wizard to set up custom encryption for your network. Whether in the office or at home – devices such as modem, router, set-top box or the computer can be connected with the dLAN 200 AVeasy using the available Ethernet interface. On top of that, the range of 200 meters creates a high degree of flexibility.

2.3 Sample applications

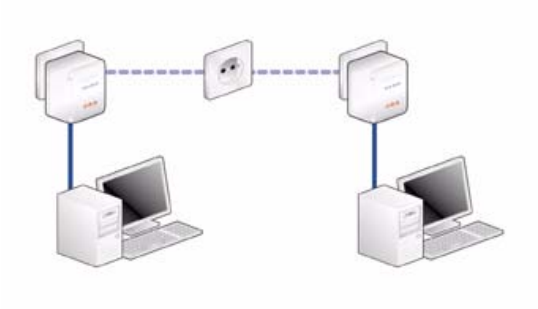
This chapter contains examples for possible network designs in home or in office.

2.3.1 Internet standalone solution

Workstation with Internet connection over a DSL modem (Ethernet interface)



2.3.2 Networking of two workstations



2.3.3 Distributed Internet access solution

Connection of an IP telephone, a high-speed Internet application and an IP-TV application with Internet access via a DSL modem router

For more sample applications and answers to frequently asked questions (FAQs) about dLAN, please visit our website at www.devolo.com.

3 Initial use

This chapter covers everything you need to know to set up your dLAN 200 AVeasy. It will explain connecting the dLAN 200 AVeasy and its functions. We will also briefly introduce the included devolo software and guide you through its installation.

3.1 Package contents

Please ensure that the delivery is complete before beginning with the installation of your dLAN 200 AVeasy:

- dLAN 200 AVeasy
- Network cable
- Hard copy of installation guide
- CD containing software and online documentation

devolo AG reserves the right to change the package contents without prior notice.

3.2 System requirements

- **Operating systems**: Windows XP (32 bit), Windows Vista (32/64 bit), Linux, Mac OS X and any other operating system with network support
- **Network connection**

Please note that your computer or other device must feature a network adapter with a network port.

*Please note that dLAN devices such as the devolo dLAN duo **(14 Mbps)** and devolo dLAN HS Ethernet **(85 Mbps)** can be used on the same household power grid as dLAN 200 AV devices **(200 Mbps)** without interference, but they will not be able to communicate directly with one another. Hence, to set up a dLAN 200 AV network, you need two dLAN 200 AV devices **(200 Mbps)**.*

3.3 Functions

The dLAN 200 AVeasy features 3 control LEDs as well as a network port and an encryption button:

3.3.1 Control lamps (LEDs)

Power	green	Lit steady when dLAN 200 AVeasy is operational.
	orange	Lit steady when the dLAN 200 AVeasy is in standby mode.
dLAN Link/Act	green	Lit steady when a connection with the dLAN 200 AV network exists; flashes when data is being sent or received via the power grid in the dLAN 200 AV network.
	red	Lit steady when dLAN adapter signals are detected; flashes when data is being sent or received via the power grid.
	orange	Lit steady when connected to a dLAN 200 AV network and dLAN adapter signals are detected; flashes when data is being sent or received via the power grid in the dLAN 200 AV network and dLAN adapter signals are detected.
ETH/ACT	green	Lit steady when a 100 Mbps or 10 Mbps connection to the Ethernet network exists; flashes when data is being transmitted.

3.3.2 Connection

- Network connection
  - This is the connection point on the dLAN 200 AVeasy for connecting it to a computer or another network device with the network cable (included).

3.3.3 Encryption button

- Data encryption at the touch of a button;
  - For more information on the functions of the encryption button, please see the chapter 4.1 'dLAN 200 AVeasy network encryption at the touch of a button'.

Please note that all dLAN 200 AV devices to be connected to your network are also connected to your household power grid. dLAN 200 AV devices switch to Standby mode after approx. 20 minutes if no active network device such as a computer is connected to the network port. In Standby mode, the dLAN 200 AV device cannot be accessed via the power supply grid. As soon as the network device (e.g. computer) connected to the network interface is switched on again, your dLAN 200 AV can also be reached again via the power grid.

3.4 Connecting the dLAN 200 AVeasy

This section describes how to connect your dLAN 200 AVeasy to a computer or other network device.

***Firmware note**: if you would like to use a dLAN 200 AVeasy together with devolo dLAN 200 AV devices, please update the firmware of the dLAN 200 AV devices first. For more information, refer to the chapter 3.5.1'Firmware update'. The current firmware can be found in the download section of our website at www.devolo.com.*

① Use the included network cable to connect the dLAN 200 AVeasy to the network port of your running computer or other network device.

② Plug the dLAN 200 AVeasy into a free electrical outlet.

If possible, do not plug the adapter into a power strip. This may impair the transmission of the dLAN signals. A free wall outlet is preferable.

③ Once you have connected at least two dLAN 200 AVeasy adapters as described above, your dLAN 200 AVeasy network has been set up. To secure your dLAN 200 AV network, continue with the configuration as described in chapter 4 'Security in the dLAN'.

3.5 Overview of the devolo software

The **Software folder** of your dLAN 200 AVeasy CD-ROM contains applications and tools for the Microsoft Windows, Mac OS X and Linux operating systems. The **Acrobat folder** contains the Acrobat Reader, which is required for reading PDF files.

3.5.1 Software for Windows

Use the installation wizard in the **Software** ▶ **dLAN** folder to set up the following software components for using the adapter with the Windows operating system:

- The **devolo dLAN configuration wizard** lets you set up custom encryption for your dLAN 200 AV network.
- **devolo Informer** finds dLAN 200 AV adapters in a dLAN 200 AV network and displays information on the devices found.

- **devolo EasyShare** lets you quickly and easily transfer files from one computer to another in your home network.
- **devolo EasyClean** is a convenient way to clear your private data in Microsoft Internet Explorer.

To install the software, insert the included CD-ROM in the CD drive of your computer. If autoplay is installed on your computer, the installation will start automatically. Otherwise, open the folder with the Windows Explorer by right-clicking on **Start** and selecting **Explorer** from the context menu. Double-click to start the installation wizard manually.

During the installation process, you will be given the choice of installing all software components ('default') or selecting individual ones ('custom').

To take full advantage of the functions of your device, we recommend installing all of the applications. As a minimum, please install the dLAN configuration wizard and Informer.

You will be asked for permission to transfer anonymous performance data related to your dLAN 200 AVeasy adapter to devolo. The data sent to devolo pertains only to the performance values of your dLAN 200 AV devices. The data is anonymized and will be used exclusively for statistical purposes. By providing it, you can help us improve our products. You can find the installed software applications in the **Start** ▶ **Programs** ▶ **devolo** program group.

Firmware update

To combine dLAN 200 AV and dLAN 200 AVeasy adapters, you must update the firmware of the dLAN 200 AV devices. Connect each dLAN 200 AV device to the computer and insert the included CD-ROM into your CD drive. Select the 'Firmware update for dLAN 200 AV products' menu item to perform the update. When the update is complete, return the device to its usual location.

The firmware update application can also be found in the download section of our website at www.devolo.com.

3.5.2 Software for Mac OS X

The **Software** ▶ **Mac** folder contains the **dLAN Wizard** to configure your system.

3.5.3 Software for Linux

The **Software** ▶ **Linux** folder contains the dLAN Linux configuration package.

4 Security in the dLAN

Data communication via the household power grid is encrypted to ensure the privacy of your dLAN 200 AV network. The following section describes data encryption options – either using the encryption button or the dLAN configuration wizard.

Please note the following basic principle when choosing your encryption method:

- In pure dLAN 200 AVeasy networks, custom data encryption can be set up at the touch of a button; i.e. all adapters feature an encryption button.
- In mixed dLAN 200 AV networks, i.e. networks using both dLAN 200 AV and dLAN 200 AVeasy adapters, you must use the dLAN configuration wizard to set up encryption.

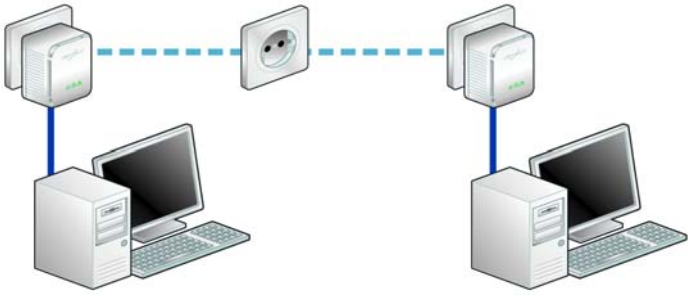
4.1 dLAN 200 AVeasy network encryption at the touch of a button

To encrypt a pure dLAN 200 AVeasy network, simply use the encryption button on the adapter. Pressing this button will encrypt your dLAN 200 AV network with a randomly generated password.

Adapters cannot be configured while in Standby mode.

The following section contains exact instructions on the basis of possible network scenarios:

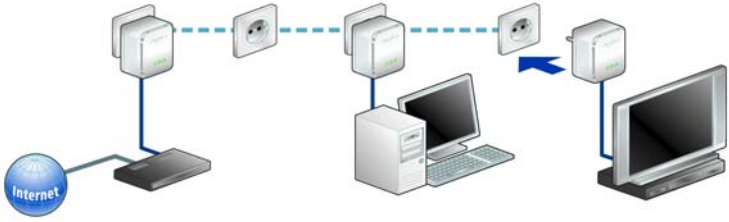
① Encrypting a new dLAN 200 AVeasy network consisting of two dLAN 200 AVeasy adapters



*If the adapters are still in their factory default states, press the encryption buttons on both adapters for **at least ten seconds**, until the Power LED goes out and starts to flash.*

Once both dLAN 200 AVeasy adapters have been successfully connected, press each encryption button for **two seconds** within two minutes of one another. That's it! Your dLAN 200 AV network is now protected against unauthorized access.

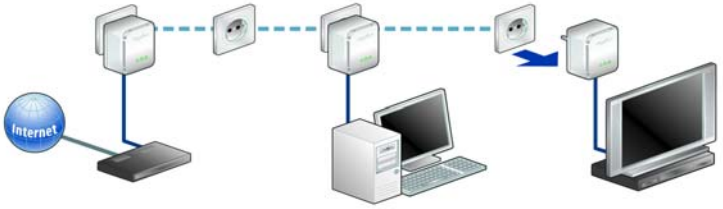
② Expanding an existing dLAN 200 AVeasy network with a new dLAN 200 AVeasy



If you have already secured your existing dLAN 200 AVeasy network using the encryption button, use the same method to integrate other adapters. Once you have successfully connected the new dLAN 200 AVeasy, first press the encryption button of one of your network's existing adapters (**two seconds**), then press the encryption button of your new dLAN 200 AVeasy (**two seconds**) within two minutes. That's it! The new dLAN 200 AVeasy is now integrated in your network.

To integrate additional dLAN 200 AVeasy adapters in your network, repeat the above steps.

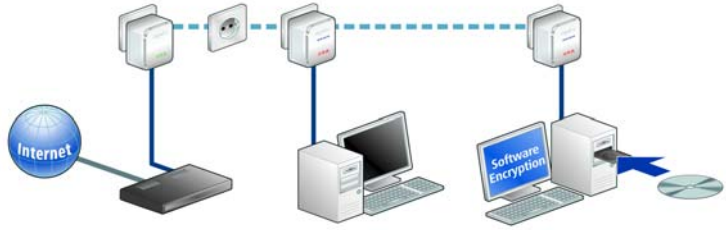
③ Excluding a dLAN 200 AVeasy from your network



To exclude a dLAN 200 AVeasy adapter from an existing network, press its encryption button for **at least ten seconds**. The device will be assigned a new randomly generated password and will thus no longer be able to access the network. To integrate the adapter in a different dLAN 200 AVeasy network, follow the steps described under ① or ②, depending on whether you are setting up a new network or adding the adapter to an existing one.

4.2 dLAN 200 AV network encryption using the dLAN configuration wizard

When using dLAN 200 AV adapters (without encryption buttons), data encryption can only be set up using the dLAN configuration wizard. Start by updating the firmware (see 3.5.1 'Firmware update') of the dLAN 200 AV adapters. The firmware update application can be found in the download section of our website at www.devolo.com.



After successfully installing the devolo software, you can launch the dLAN configuration wizard via the **Start** ▶ **Programs** ▶ **devolo** program group and the **Device** ▶ **Start dLAN configuration wizard** of the devolo Informer.

Before beginning with this step, make a note of the security IDs of all existing dLAN adapters. This unique identifier of each dLAN device is located on the label of the housing. It consists of 4 x 4 letters separated by dashes (e.g. ANJR-KMOR-

KSHT-QRUV). Ensure that all dLAN adapters are connected to the power grid and computers or other network components as appropriate.

① Scan for **dLAN 200 AV adapter**
After launching the Wizard, it initially scans for a dLAN adapter connected directly to your computer.

② **Assign a network password**
In this step, select a network password that will apply to all adapters in your home network. The password must be used by all dLAN devices.

Three options are available:

Continue using the existing password

If you already have a network password, it is generally a good idea to use it for the new dLAN adapter as well. If you do not want to continue using it, or you would like to use an automatically generated password or one you have chosen yourself, you will need to rebuild your dLAN network once with the dLAN configuration wizard, entering the security IDs for each of the adapters.

Automatically generate a password

Alternatively, the dLAN configuration wizard can automatically generate a password for use with your dLAN network.

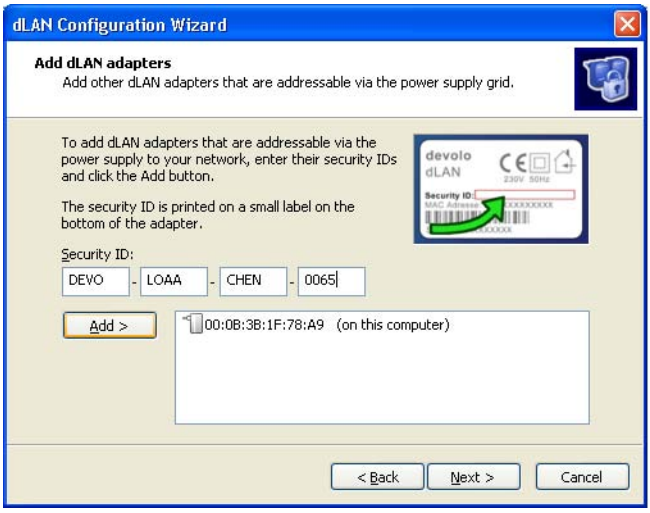
Assign your own password/reset the password to factory default

You can also assign a password of your own, or restore the factory default password of your dLAN adapter.

*The factory default password is "**HomePlugAV**".*
Assigning a specific password to a single adapter will exclude it from the remaining dLAN network.

③ **Add dLAN adapters**
At this point, add further dLAN adapters to your home network. You will need the 16-character security IDs from the label on adapter housing. Enter

the code without hyphens in the 'Security ID' field and click **Add**. The device will be found if the security ID is correct.


dLAN Configuration Wizard
Add dLAN adapters
Add other dLAN adapters that are addressable via the power supply grid.
To add dLAN adapters that are addressable via the power supply to your network, enter their security IDs and click the Add button.
The security ID is printed on a small label on the bottom of the adapter.
devolo dLAN
Security ID:
Security ID:
DEVO - LOAA - CHEN - 0065
Add >
00:0B:3B:1F:78:A9 (on this computer)
< Back
Next >
Cancel

When launching the dLAN configuration wizard again after a successful initial installation – when integrating a new adapter into the network, for example – the application will remember devices and security IDs entered in previous sessions. It will therefore not be necessary to enter them again. The dLAN configuration wizard will display an error message if an adapter entered previously is not found. In that case, check whether the dLAN device is connected to the power grid and is available.

Once you have entered the security IDs of your dLAN adapters, your dLAN network is complete. All computers and other network devices connected to the adapters by cable should now be able to communicate with one another in the network.

4.3 devolo Informer

devolo Informer can detect all available dLAN adapters in your home network and display device information in an overview. After installing the devolo software, it can be found in the **Start** ▶ **Programs** ▶ **devolo** program group. When the Informer is launched, it initially scans your home network for all available dLAN devices. This may take a moment. All found adapters are listed with their names and MAC addresses in the overview window. Their firmware ver-

sions are also displayed, as are the transfer speeds of active connections between the adapters. devolo Informer generally updates the list of found dLAN devices automatically. If newly-added adapters do not appear in the window, refresh the display with **F5** or via the **View** menu.

Use the **Device** menu or the context menu that opens with a right-click on the name of the displayed dLAN device to rename the adapter or launch the dLAN configuration wizard.

Multiple instances of devolo Informer installed in your network can be set to exchange information about found dLAN adapters under **View** ▶ **Options…**. You may also specify whether information on the performance of your dLAN adapters will be transferred to devolo here. The data sent to devolo pertains only to the performance values of your dLAN devices. The data is anonymized and will be used exclusively for statistical purposes. By providing it, you can help us improve our products.

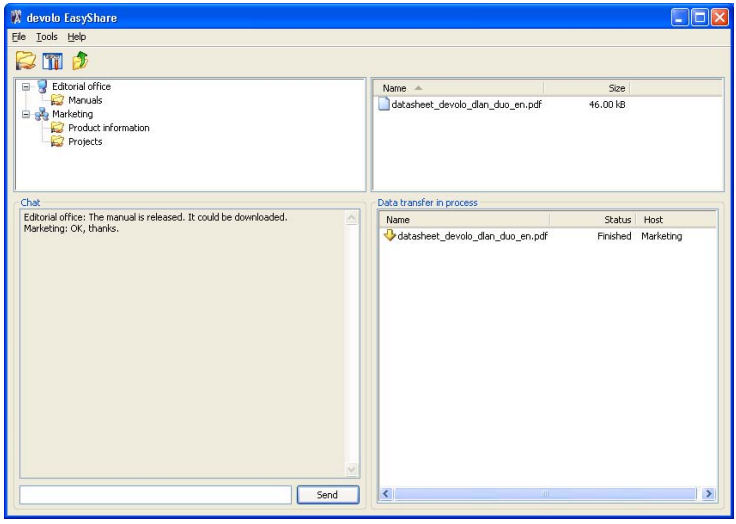
5 Additional devolo software

Your dLAN 200 AVeasy comes with two helpful utilities that can simplify your work with your home network:

- devolo EasyClean can help protect your privacy if you surf the Internet using Microsoft Internet Explorer.
- devolo EasyShare provides you with a fast, simple and reliable way of transferring files between Windows PCs in your network.

5.1 devolo EasyShare

Once you have physically connected your computers to a network, the next challenge frequently arises: how do you configure the computers to exchange files quickly and easily, yet without compromising security? If you have ever had problems sharing a folder on your Windows PC so that other computers in your network can see and access it, you will quickly come to appreciate devolo EasyShare. This little application lets you transfer files from one computer to another simply and quickly. It even features a chat function that lets EasyShare users communicate within their local network. EasyShare can be found under **Start ▶ Programs ▶ devolo**.



The dialog window of the application is divided into four sections.

The top left section contains your own computer, as well as any other computers in your home network and that are also running EasyShare. If a newly added PC does not appear here, press **F5** or use **File** ▶ **Refresh** to update the list.

The program generally finds additional computers running EasyShare automatically and very quickly. In doing so, it scans the entire so-called subnet, which normally consists of 255 different IP addresses (e.g. 192.168.0.1, 192.168.0.2, etc. up to 192.168.0.255).

Normally, EasyShare uses the name of your PC. You can also use the **Options** menu to specify a different designation under which your computer will appear in the EasyShare network. The application's sounds can also be enabled and disabled there. If folders have ready been shared on the various found EasyShare computers, their names can be displayed by clicking on the plus line to the left of the computer name. Click a folder to display its contents in the top right-hand section of the EasyShare window. Two options are available for transferring files to your own computer:

- **Double-click** the file name with the left mouse button. EasyShare will open a small dialog box prompting you for the target folder on your computer.
- Alternatively, **right-click** to open a context menu that also contains the last destination used, such as the desktop of the current Windows user.

The current transfers appear in the lower right-hand section of the EasyShare window. In addition to the file name, the progress in percent, the transfer rate in Kbps and the name of the source computer are displayed.

To share folders on your own computer, click the name of your own computer and use the **File** ▶ **Sharing** menu. A short wizard will help you enter the exact path or browse to the correct folder. Once you have specified a share name, the folder and its files and subfolders will be available to all other EasyShare users. Shares can also be deleted in the File Sharing menu, while **File** ▶ **Share properties** lets you configure your shares.

Be careful when sharing large folders or whole hard drives! Their contents (including all subfolders) will be available to any user of your home network who also uses EasyShare. Unlike Windows shares, however, they are only available whenever EasyShare is running.

All current EasyShare users can chat in the lower left-hand section. Simply enter your text in the input field under the chat section and press **Send**. Your message will immediately appear in the chat section of other users' EasyShare windows.

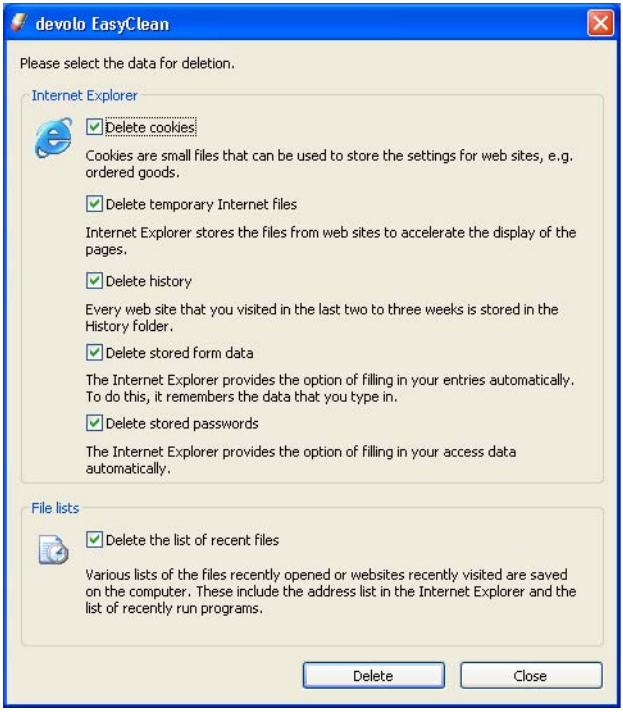
5.2 devolo EasyClean

If you surf the Internet using Microsoft Internet Explorer, devolo EasyClean can help protect your privacy. The web browser continuously stores a range of personal information such as cookies and the addresses of visited sites, as well as form contents and even passwords. However, Internet Explorer (especially versions below 7.0) is very vulnerable to attackers who access that information and misuse it for criminal purposes. EasyClean can be found under **Start** ▶ **Programs** ▶ **devolo**.

The devolo EasyClean utility lets you manually delete the information collected by Internet Explorer and Windows. The following data can be cleared:

- **Cookies**—Many websites store small files on your computer, so-called cookies. These files may contain personal information such as log-in data, passwords or credit card numbers.
- **Temporary Internet files**—Temporary files are stored on your hard drive while you surf the Net. Over time, these files take up a considerable amount of space.
- **History files**—Internet Explorer records your surfing activity over a period of days or weeks. This can be practical, but it also takes up space and can be undesirable in many cases.
- **Stored form information**—Internet Explorer stores information that you enter in forms and can auto-complete this information in the future.
- **Stored passwords**—Passwords can also be stored and automatically inserted together with usernames in subsequent log-in procedures. While this is convenient, it's also dangerous—especially in connection with bank transactions. Sensitive information such as this should only be stored locally in special programs designed for this purpose.
- **Document history**—Internet Explorer maintains lists of open documents and visited websites. This information is generally no longer needed.

Simply check or clear the checkboxes of the data types as appropriate and click **Delete**. That's it!


devolo EasyClean
Please select the data for deletion.
Internet Explorer
Delete cookies
Cookies are small files that can be used to store the settings for web sites, e.g. ordered goods.
Delete temporary Internet files
Internet Explorer stores the files from web sites to accelerate the display of the pages.
Delete history
Every web site that you visited in the last two to three weeks is stored in the History folder.
Delete stored form data
The Internet Explorer provides the option of filling in your entries automatically. To do this, it remembers the data that you type in.
Delete stored passwords
The Internet Explorer provides the option of filling in your access data automatically.
File lists
Delete the list of recent files
Various lists of the files recently opened or websites recently visited are saved on the computer. These include the address list in the Internet Explorer and the list of recently run programs.
Delete
Close

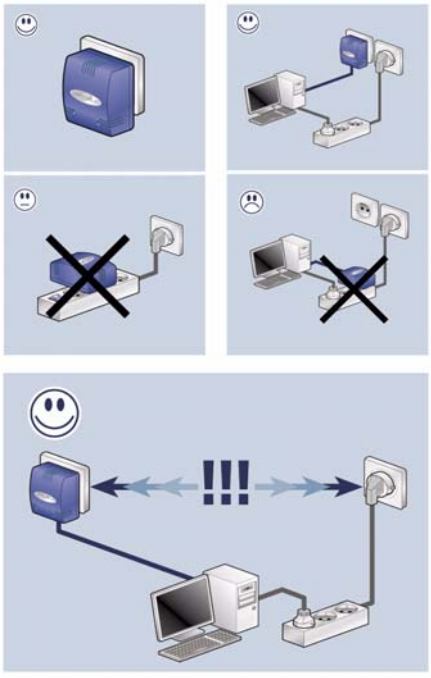
We also recommend powerful and secure alternatives to Microsoft Internet Explorer such as Firefox (www.firefox.com) or Opera (www.opera.com).

6 Appendix

6.1 Bandwidth optimization

We recommend observing the following connection rules to eliminate possible sources of interference:

- Avoid extension strips. This may impair the transmission of the dLAN signals. Free wall outlets are preferable.



- Also position the adapter away from your computer, as it may interfere with the adapter's operation.
- Plug the devices into different outlets and avoid using the same extension strip.

6.2 Important safety instructions

All safety and operating instructions should be read and understood before using the device, and should be kept for future reference.

- Never open the dLAN 200 AVeasy. There are no user-serviceable parts inside the dLAN 200 AVeasy.

Do not try to service this product yourself! Contact qualified technicians each and every time your device needs maintenance. There is a risk of electric shock!

- Use the dLAN 200 AVeasy in a dry location only.
- Always use the included network cable to connect the device.
- Do not insert any objects into the openings of the dLAN 200 AVeasy.
- To disconnect the dLAN 200 AVeasy from the power supply grid, pull the power plug.
- Do not keep the dLAN 200 AVeasy in direct sunlight.
- Slots and openings on the case serve as ventilation. Never block or cover them.
- Never set up the dLAN 200 AVeasy near a heater or radiator.
- The dLAN 200 AVeasy should be located only where sufficient ventilation according to the instructions of the manufacturer can be ensured.
- Disconnect the dLAN 200 AVeasy from the power supply grid before cleaning. Use a moist towel to clean the device. Never use water, paint thinner, benzene, alcohol or other strong cleaning agents when cleaning the device, as these could damage the case.
- Never use the dLAN 200 AVeasy with a power supply that does not meet the specifications provided on the rating plate. If you do not know what type of power supply you have at home, contact your dealer or energy supplier.
- In the event of damage, disconnect the dLAN 200 AVeasy from the power supply grid and contact customer service. This applies, for example, if
  - the power cable or plug is damaged.
  - liquid has been spilled on the dLAN 200 AVeasy or objects have fallen into the device.
  - the dLAN 200 AVeasy has been exposed to rain or water.
  - the dLAN 200 AVeasy does not work, even though the operating instructions have been followed properly.
  - the dLAN 200 AVeasy's case is damaged.

6.3 Technical data

This table has detailed information for those interested.

	dLAN 200 AVeasy
Standards	Ethernet spezification IEEE 802.3, IEEE 802.3x, IEEE 802.3u Auto MDI / X HomePlug AV
Protocols	TDMA, CSMA/CA
Transfer speed	up to 200 Mbps
Transfer method	asynchronous
Modulation	OFDM – 1155 carrier, 1024/256/64-QAM, QPSK, BPSK
Data path	Ethernet <-> mains supply
Range	200 m (min.) via mains supply
Security	128-bit-AES encryption via mains supply
LEDs	Power Ethernet Link/Act dLAN Link/Act
dLAN connection	Euro mains plug
Device interface	Ethernet RJ45
Power consumption	5.5 W (max.) 3.3 W on stand-by
Power supply	AC 100 – 240 V, 50/60 Hz
Temperature	Storage: -25°C - 70°C Operation: 0°C - 40°C
Weight	148 g
Dimensions	80 x 65 x 40 mm (height x width x depth)
Environmental conditions	10-90% air humidity (non-condensing)
System requirements	Ethernet interface
Operating systems	Windows XP (32 bit), Windows Vista (32/64 bit), Linux, Mac OS X and any other operating system with network support
Approvals	CE-compliant in accordance with the technical requirements of R&TTE for all EU countries and Switzerland EN 55022 EN 50412 EN 60950
Part No.	01216 (DE/AT/CH/BE/IT/NL/ES), 01218 (UK), 01219 (FR)

	dLAN 200 AVeasy
EAN code	4250059612167 (DE/AT/CH/BE/IT/NL/ES), 4250059612181 (UK), 4250059612198 (FR)
Warranty	3 years
Service & Support	Telephone and e-mail support. Telephone numbers and e-mail addresses are on the support flyer supplied with the product and on the devolo website.
Design	Wall plug synthetic housing
Weight	428 g
Packading size	188 x 302 x 115 mm (height x width x depth)
Accessories	Ethernet cable RJ45-RJ45 (Cat 5) Documentation: printed installation flyer CD-ROM: PDF manual Configuration software for Windows XP, Windows Vista (32/64 bit), Linux, Mac OS X, additional software: devolo Informer, devolo EasyShare, devolo EasyClean

6.4 CE conformity

CE

This product complies with the technical requirements of the 1999/5/EC Directive (R&TTE) and the other relevant provisions of the FTEG, and it is designed for use in the EU and Switzerland.

The product is class B equipment. This equipment may cause interference with radio waves in home use; if this occurs the operator may be required to take corrective action.

6.4.1 Declaration of conformity

CE

KONFORMITÄTSERKLÄRUNG

DECLARATION OF CONFORMITY

Hersteller: Manufacturer:	**devolo AG** **Sonnenweg 11** **52070 Aachen**
Produkt: Product:	**devolo dLAN®200 AVeasy**
Typnummer: Type number:	**MT 2109, 2110, 2111**
Verwendungszweck: Intended purpose:	**PLC zu Ethernet** PLC to Ethernet
Richtlinie: Directive:	**EMV 89/336/EWG** EMC 89/336/EEC

Das Produkt entspricht den grundlegenden Anforderungen und Bestimmungen der folgenden Normen und Methoden:
The product complies with the essential requirements and provisions of following standards and methods:

Sicherheitsanforderungen: Safety requirements:	**EN 60950-1:2001+A11:2004**
Immunitätsanforderungen: Immunity requirements:	**EN 50412-2-1:2006**
Emissionsanforderungen: Emission requirements:	**EN 55022:2006 (Class B)** **und Expert Opinion vom Competent Body EMV** and Expert Opinion by Competent Body EMC

Diese Erklärung wird verantwortlich abgegeben durch:
This declaration is submitted by:

Aachen, 10. Mai 2007
Aachen, 10th May 2007

Heiko Harbers
Vorstandsvorsitzender
CEO

6.5 Warranty conditions

The devolo AG warranty is given to purchasers of devolo products in addition to the warranty conditions provided by law and in accordance with the following conditions:

1 Warranty coverage

a) The warranty covers the equipment delivered and all its parts. Parts will, at devolo's sole discretion, be replaced or repaired free of charge if, despite proven proper handling and adherence to the operating instructions, these parts became defective due to fabrication and/or material defects. Alternatively, devolo reserves the right to replace the defective product with a comparable product with the same specifications and features. Operating manuals and possibly supplied software are excluded from the warranty.

b) Material and service charges shall be covered by devolo, but not shipping and handling costs involved in transport from the buyer to the service station and/or to devolo.

c) Replaced parts become property of devolo.

d) devolo is authorized to carry out technical changes (e.g. firmware updates) beyond repair and replacement of defective parts in order to bring the equipment up to the current technical state. This does not result in any additional charge for the customer. A legal claim to this service does not exist.

2 Warranty period

The warranty period for this devolo product is three years. This period begins at the day of delivery from the devolo dealer. Warranty services carried out by devolo do not result in an extension of the warranty period nor do they initiate a new warranty period. The warranty period for installed replacement parts ends with the warranty period of the device as a whole.

3 Warranty procedure

a) If defects appear during the warranty period, the warranty claims must be made immediately, at the latest within a period of 7 days.

b) In the case of any externally visible damage arising from transport (e.g. damage to the housing), the person carrying out the transportation and the sender should be informed immediately. On discovery of damage which is not externally visible, the transport company and the sender are to be immediately informed in writing, at the latest within 3 days of delivery.

c) Transport to and from the location where the warranty claim is accepted and/or the repaired device is exchanged, is at the purchaser's own risk and cost.

d) Warranty claims are only valid if a copy of the original purchase receipt is returned with the device. devolo reserves the right to require the submission of the original purchase receipt.

4 Suspension of the warranty

All warranty claims will be deemed invalid

a) if the label with the serial number has been removed from the device,

b) if the device is damaged or destroyed as a result of acts of nature or by environmental influences (moisture, electric shock, dust, etc.),

c) if the device was stored or operated under conditions not in compliance with the technical specifications,

d) if the damage occurred due to incorrect handling, especially to non-observance of the system description and the operating instructions,

e) if the device was opened, repaired or modified by persons not contracted by devolo,

f) if the device shows any kind of mechanical damage, or

g) if the warranty claim has not been reported in accordance with 3a) or 3b).

5 Operating mistakes

If it becomes apparent that the reported malfunction of the device has been caused by unsuitable hardware, software, installation or operation, devolo reserves the right to charge the purchaser for the resulting testing costs.

6 Additional regulations

a) The above conditions define the complete scope of devolo's legal liability.

b) The warranty gives no entitlement to additional claims, such as any refund in full or in part. Compensation claims, regardless of the legal basis, are excluded. This does not apply if e.g. injury to persons or damage to private property are specifically covered by the product liability law, or in cases of intentional act or culpable negligence.

c) Claims for compensation of lost profits, indirect or consequential detriments, are excluded.

d) devolo is not liable for lost data or retrieval of lost data in cases of slight and ordinary negligence.

e) In the case that the intentional or culpable negligence of devolo employees has caused a loss of data, devolo will be liable for those costs typical to the recovery of data where periodic security data back-ups have been made.

f) The warranty is valid only for the first purchaser and is not transferable.

g) The court of jurisdiction is located in Aachen, Germany in the case that the purchaser is a merchant. If the purchaser does not have a court of jurisdiction in the Federal Republic of Germany or if he moves his domicile out of Germany after conclusion of the contract, devolo's court of jurisdiction applies. This is also applicable if the purchaser's domicile is not known at the time of institution of proceedings.

h) The law of the Federal Republic of Germany is applicable. The UN commercial law does not apply to dealings between devolo and the purchaser.

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